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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,270

04/13/2005

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EXAMINER

LIGHTFOOT, ELENA TSOY

ART UNIT

PAPER NUMBER

1792

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/531,270	Applicant(s) IWAKIRI ET AL.	
	Examiner Elena Tsoy Lightfoot	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 8-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/13/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-7, in the reply filed on 8/22/2008 is acknowledged.
2. Claims 1-16 are pending in the application. Claims 8-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

It is not clear from the language of claim 1 what statutory class of invention is really desired for examination: whether it is a "composition" type of claim (a sealant composition) or a "product" type of claim (a transparent substrate coated with a sealant composition) so as to include or exclude what structural elements?

For examining purposes claim 1 was interpreted according to the Applicants' specification as directed to a sealant composition *for the use* with a transparent substrate having an anti-staining layer. Note that the Applicants' specification discloses in P1 that the present invention relates to sealants (both solid sealants beforehand molded as sealants in predetermined shapes and liquid sealants are included) **to be used for** low-staining transparent materials.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chiba et al (US 6025445).

Chiba et al discloses a curable composition comprising a reactive silicon group containing saturated hydrocarbon based polymer (See Abstract). The curable composition can be suitably employed as a **sealant** for glass (See column 11, lines 15-27).

It is the Examiner's position that a sealant composition of Iwahara et al may be used for sealing any surface including a transparent substrate having an anti-staining layer. It is held that recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

If this position could be argued, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the sealant composition of Iwahara et al for sealing any surface including a transparent substrate having an anti-staining layer since Iwahara et al does not limit its teaching to a particular substrate.

8. Claims 1-4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Iwahara et al (US 4,904,732).

Iwahara et al discloses a curable composition comprising a reactive silicon group containing saturated hydrocarbon based polymer (See Abstract; column 14, line 49). The curable composition can be suitably employed as a **sealant** (See column 14, lines 47-51).

It is the Examiner's position that a sealant composition of Iwahara et al may be used for sealing any surface including a transparent substrate having an anti-staining layer. It is held that recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

If this position could be argued, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the sealant composition of Iwahara et al for sealing any surface including a transparent substrate having an anti-staining layer since Iwahara et al does not limit its teaching to a particular substrate.

9. Claims 1-4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hatsutory et al (JP 59078220).

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Hatsutory et al discloses a sealant comprising a copolymer of alkyl acrylate of formula $\text{CH}_2=\text{CHCOOR}^1$ (R^1 is 2-8 alkyl), vinyl alkoxy-silane, and mercapto group containing a chain transfer agent (claimed reactive silicon group containing acryl polymer) (See Abstract).

It is the Examiner's position that a sealant composition of Hatsutory et al may be used for sealing any surface including a transparent substrate having an anti-staining layer. It is held that recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

If this position could be argued, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the sealant composition of Hatsutory et al for sealing any surface including a transparent substrate having an anti-staining layer since Hatsutory et al does not limit its teaching to a particular substrate.

10. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiba et al or Iwahara et al or Hatsutory et al, as applied above, further in view of Kiel (US 3,522,075).

Iwahara et al or Hatsutory et al, as applied above, fails to teach that sealant may be used in combination with a transparent material (Claim 1) such as a building material (Claim 4), e.g. glass (Claim 3) having an anti-staining layer on the surface thereof (Claim 1) such as a photocatalyst (Claim 2).

Kiel teaches that an adhesion of a curable organopolysiloxane resin-based composition (See column 5, lines 5-8) to a glass surface may be substantially increased by coating the glass surface with a metal oxide such as titanium dioxide (claimed photocatalyst) (See column 2, lines

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14-16) before applying a curable organopolysiloxane resin-based coating (See column 1, lines 42-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a curable organopolysiloxane resin-based sealant in the cited prior art for sealing glass surface that is coated with a metal oxide such as titanium dioxide before applying a curable organopolysiloxane resin-based composition with the expectation of providing the desired substantially increased adhesion of the organopolysiloxane resin-based sealant to the glass surface, as taught by Kiel.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over (Chiba et al or Iwahara et al or Hatsutory et al) or ((Chiba et al or Iwahara et al or Hatsutory et al) in view of Kiel), as applied above, further in view of Kharlamova et al (RU 2005112).

Chiba et al teaches that the curable composition may contain **plasticizers** (See column 10, lines 59-67) such as polybutene, hydrogenated polybutene, etc. (See column 10, lines 59-60).

Iwahara et al teaches that the curable composition may contain **plasticizers** (See column 13, lines 50-52) such as polybutene, hydrogenated polybutene, dibutyl phthalate (See column 14, line 6).

Although Hatsutory et al does not expressly teach that the sealant composition contains a plasticizer, it is a common knowledge in the art to add plasticizers to coating composition, as evidenced by Chiba et al and Iwahara et al.

The cited prior art fails to teach that the plasticizer is an acryl-based plasticizer.

Kharlamova et al teaches that either dibutyl phthalate or oligoether acrylate may be as a plasticizer in a coating composition (See Abstract). In other words, Kharlamova et al teaches that

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oligoether acrylate is suitable for the use as a plasticizer in a coating composition. It is held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used oligoether acrylate (claimed acryl based plasticizer) as a plasticizer in the cited prior art since Kharlamova et al teaches that oligoether acrylate is suitable for the use as a plasticizer in a coating composition.

12. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatsutory et al or Hatsutory et al in view of Kiel.

Note that the acryl acrylate $\text{CH}_2=\text{CHCOOR}^1$ wherein R^1 is ethyl, in Hatsutory et al is homologue of claimed $\text{CH}_2=\text{CHCOOCH}_3$. However, it is well settled that a prior art compound may suggest its homologues because homologues often have similar properties (See MPEP 2144.08, II, 4c).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used $\text{CH}_2=\text{CHCOOCH}_3$ in Hatsutory et al instead of $\text{CH}_2=\text{CHCOOCH}_2\text{CH}_3$ with the expectation of providing the desired properties since homologues have similar properties.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy Lightfoot whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy Lightfoot, Ph.D.
Primary Examiner
Art Unit 1792

October 9, 2008

/Elena Tsoy Lightfoot/